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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,524

09/01/2006

Kei Tashiro

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2979

22852

7590

09/02/2008

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
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EXAMINER

HEINCER, LIAM J

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

09/02/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/591,524	TASHIRO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Liam J. Heincer	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/2006 and 1/2007</u> .                                       | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawahara et al. (JP 2004-099696). Note: A machine translation is being used for JP 2004-099696 and all citations will be directed towards the machine translation.

Considering Claim 1: Kawahara et al. teaches a method for deproteinizing natural rubber latex (¶0001) comprising adding a urea denaturing agent (¶0008-09) and a surface active agent/surfactant (¶0015) to a natural rubber latex (¶0010); mixing and agitating the mixture (¶0028); and separating the denatured proteins from the rubber latex (¶0014).

Kawahara et al. does not teach the mixing as occurring during the transportation through a fluid channel. However, it is obvious to transform a known batch process into a continuous process. See MPEP § 2144.04 (V). Therefore it would have been obvious to a person having ordinary skill in the art at the time of invention to have made

Art Unit: 1796

the process of Kawahara et al. continuous/mix the components in a transportation channel, and the motivation to do so would have been to make the process more efficient and cost effective.

Considering Claim 2: Kawahara et al. teaches using the urea in an amount of 0.2 weight percent (Example 1).

Considering Claim 3: Kawahara et al. teaches using the surface active agent in an amount of 0.01 to 10 weight percent (¶0012).

Considering Claim 4: Kawahara et al. teaches the separation as being preformed through centrifugal separation treatment (¶0007).

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. (Purification of Natural Rubber with Urea), presented in applicant's IDS (9/1/06), in view of Trautman (US Pat. 5,777,004).

Considering Claims 1, 4, and 5: Saito et al. teaches a method of denaturing natural rubber latex (page 1) comprising comprising adding a urea denaturing agent and a surfactant to a natural rubber latex (page 1); and centrifuging the mixture at 10,000 G (page 1).

Saito et al. doesn't teach agitating the mixture. However, Trautman teaches agitating a mixture of a natural rubber latex and a denaturing agent (5:29-35). Saito et al. and Trautman are analogous art as they are concerned with the same field of endeavor, namely denaturing natural rubber latex proteins. It would have been obvious to a person having ordinary skill in the art at the time of invention to have agitated the mixture of Saito et al. as in Trautman and the motivation to do so would have been, as Trautman suggests, to ensure complete hydrolysis of the proteins (5:29-35).

Saito et al. does not teach the mixing as occurring during the transportation through a fluid channel. However, it is obvious to transform a known batch process into a continuous process. See MPEP § 2144.04 (V). Therefore it would have been obvious to a person having ordinary skill in the art at the time of invention to have made the process of Saito et al. continuous/mix the components in a transportation channel,

Art Unit: 1796

and the motivation to do so would have been to make the process more efficient and cost effective.

Considering Claim 2: Saito et al. teaches the amount of urea added as being 0.1 weight percent (page 1).

Considering Claim 3: Saito et al. teaches the amount of surfactant as being 1 weight percent (page 1).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO Form 892.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liam J. Heincer whose telephone number is 571-270-3297. The examiner can normally be reached on Monday thru Friday 7:30 to 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo, Ph.D./

LJH

Supervisory Patent Examiner, Art Unit 1796

August 21, 2008

28-Aug-08